ABSTRACT

A cluster computing system, comprises: a production host group; a standby host group coupled to the production host group by a network; and a remote mirror coupled between the production host group and the standby host group, the remote mirror including a production site heartbeat storage volume (heartbeat PVOL) and a standby site heartbeat storage volume (heartbeat SVOL) coupled by a remote link to the heartbeat PVOL, with the production host group configured to selectively send a heartbeat signal to the standby host group by use of at least one of the network and the remote link. A method of checking for failure in a cluster computing system, comprises: generating a heartbeat signal from a production host group; selectively sending the heartbeat signal to the standby host group from the production host group by use of at least one of a network and a remote link; and enabling the standby host group to manage operations of the cluster computing system if an invalid heartbeat signal is received by the standby host group from the production host group.